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PATENT ABSTRACTS OF JAPAN

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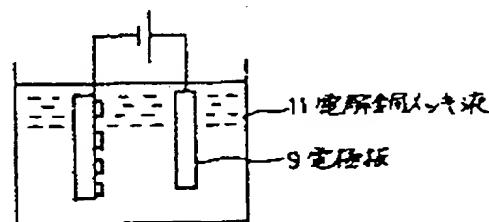
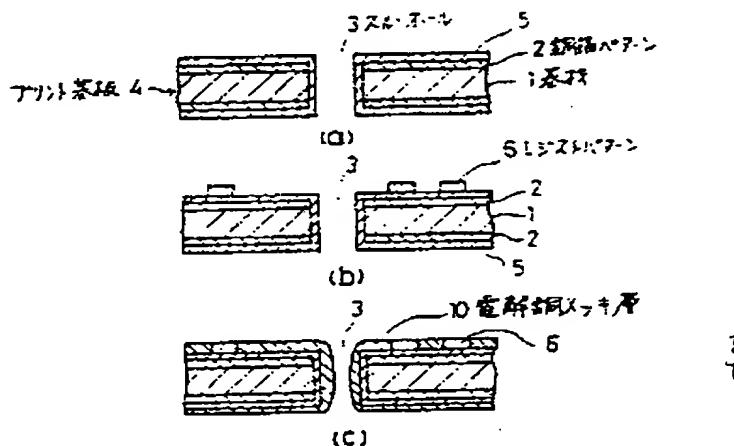
(74) Representative:

(54) PLATING OF PRINTED BOARD

(57) Abstract:

PURPOSE: To form an electrolytic copper plated layer of a sufficient thickness in a through hole as well as selectively only on one side of a substrate by a method wherein an electrode sheet is provided opposite to the formed resist pattern side of a printed board while the substrate is plated meeting the requirements for a specified content of copper sulfate in electrolyte and a specified current density between the substrate and the electrode.

CONSTITUTION: A printed board 4 with a through hole 3 made and resist patterns 6 formed on one side is immersed in electrolyte (electrolytic copper plating solution) 11. This electrolyte of 11 is composed of 270-330gr of copper sulfate ($CuSO_4 \cdot 5H_2O$), 100gr of H_2SO_4 in 98 weight %, chlorine ion concentration in



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50ppm with specified amount of salt added to said plating bath materials melted in water as solvent. Next, the board 4 and electrodes are impressed with direct current making the current density of electrolyte 55 65mA/cm² assuming the board 4 as negative electrode side while a copper electrode 9 provided opposite to the board side whereon the resist patterns 6 are formed as positive electrode side.

Through these procedures, an electrolytic copper plated layer 10 in sufficient thickness can be formed in the through hole while the electrolytic copper plated layer 10 can be formed selectively only on one side whereon the resist patterns 6 are formed.

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Plating printed circuit board - involves circulating electrolyte in plating tank via PCB through-holes

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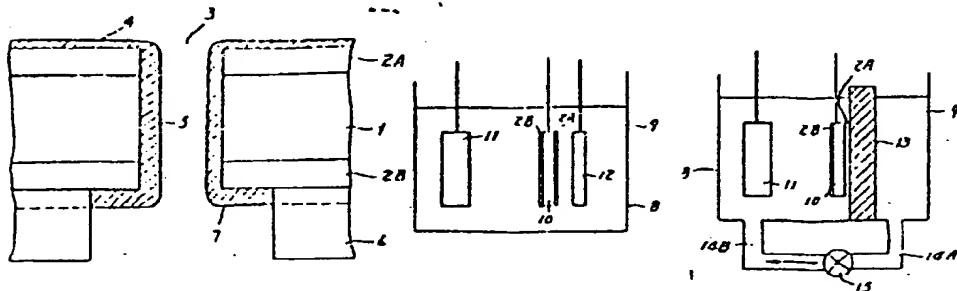
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Electrolyte in a plating tank is circulated via the through-holes of a PCB and is isolated from the PCB being plated.

USE/ADVANTAGE - Cu plating thickness of through holes is maintained at 10-20 microns. This sufficiently maintains the reliability of through-hole connection. (3pp Dwg.No 1,3/3)

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